

AMENDMENTS TO THE CLAIMS

Claims 1-15 (Cancelled).

16. (New) A positioning system for use in a data acquisition system having at least one antenna to be passed over a surface to be surveyed, said positioning system comprising:

a plurality of base guides arranged side-by-side to one another, said base guides operable to be coupled to the surface; and

a support structure for supporting the at least one antenna, said support structure including at least one support guide for engaging at least one of said base guides, said at least one support guide being oriented to direct said support structure along said at least one of said base guides.

17. (New) The positioning system of claim 16, wherein said plurality of base guides are linear base guides.

18. (New) The positioning system of claim 16, wherein said plurality of base guides are positioned on a supporting layer made of flexible material.

19. (New) The positioning system of claim 18, wherein said supporting layer, said plurality of base guides, and said at least one support guide are arranged to define an upper surface on which said support structure travels.

20. (New) The positioning system of claim 18, wherein said supporting layer has a lower abrasive surface to prevent movement after said supporting layer has been positioned.

21. (New) The positioning system of claim 16, wherein said plurality of base guides are spaced apart from each other at a preset distance.

22. (New) The positioning system of claim 16, wherein said plurality of base guides are spaced apart from each other proportional to a working wavelength of a measuring system placed above said support structure.

23. (New) The positioning system of claim 16, wherein said plurality of base guides comprise at least one group of said base guides identified with an identification element.

24. (New) The positioning system of claim 16, wherein said positioning system is operable to permit three-dimensional Georadar acquisitions.

25. (New) The positioning system of claim 16, further comprising a stopping device for stopping a movement of said support structure, said stopping device being located at at least one end of at least one of said plurality of base guides.

26. (New) The positioning system of claim 16, wherein each of said plurality of base guides is made of flexible material.

27. (New) The positioning system of claim 16, wherein said plurality of base guides are directly applied to the surface by glue.

28. (New) The positioning system of claim 16, wherein said plurality of base guides are composed of a layer of corrugated cardboard.

29. (New) The positioning system of claim 28, wherein said at least one support guide is composed of a layer of corrugated cardboard fixed to a lower surface of said support structure.

30. (New) The positioning system of claim 16, wherein said base guides are parallel to each other, and each of said at least one support guide of said support structure is fitted within a

respective recess defined between an adjacent pair of said base guides, each of said at least one support guide being oriented so as to be parallel to said adjacent base guides.

31. (New) The positioning system of claim 16, further comprising a flexible supporting layer, said base guides being fixed to said supporting layer so as to be parallel to each other and such that an upper surface of said supporting layer and side walls of an adjacent pair of said base guides define a recess formed between said adjacent pair of said base guides, said at least one support guide being fitted into said recess.

32. (New) A data acquisition system comprising:
at least one antenna to be passed over a surface to be surveyed;
a positioning system including:
a plurality of base guides arranged side-by-side to one another, said base guides operable to be coupled to the surface; and
a support structure supporting said at least one antenna, said support structure including at least one support guide for engaging at least one of said base guides, said at least one support guide being oriented to direct said support structure along said at least one of said base guides.

33. (New) The data acquisition system of claim 32, further comprises a transmitter and a receiver for allowing said at least one antenna to transmit and receive signals.

34. (New) The data acquisition system of claim 32, wherein said base guides are parallel to each other, and each of said at least one support guide of said support structure is fitted within a respective recess defined between an adjacent pair of said base guides, each of said at least one support guide being oriented so as to be parallel to said adjacent base guides.

35. (New) The data acquisition system of claim 32, wherein said positioning system further includes a flexible supporting layer, said base guides being fixed to said supporting layer so as to be parallel to each other and such that an upper surface of said supporting layer and side walls of an adjacent pair of said base guides define a recess formed between said adjacent pair of said base guides, said at least one support guide being fitted into said recess.